Claims

What is claimed is:

1. Polishing device having a shank and at least on one end of the shank one polishing disk that can be friction-fixed by two stops one opposite another, characterized in that there is a protective element, that is provided with at least one passageway allowing it to friction-fixed by said two stops one opposite another together with said polishing disk in a radially secured manner and preventing any contact between the surface to be polished and the shank end or stop.

2. Polishing device according to Claim 1, characterized in that the protective element is a plastic bushing having a flange on one side.

3. Polishing device according to Claim 2, characterized in that at least one side of the flange bears ribs.

4. Polishing device according to Claim 2, characterized in that on the inside, the flange is thicker towards the axis of rotation than on the outside.

5. Polishing device according to Claim 2, characterized in that there is a ledge on the inside of the bushing, in particular a circumferential ledge for locking the shank end.

6. Polishing device according to any of Claim 2, characterized in that the bushing is essentially made of elastic material to protect the surface to be polished, and that the flange is essentially made of non-elastic material to fix the polishing disks.

7. Polishing device according to any of Claim 2, characterized in that the protective element can be friction-fixed between the stop at the shank end and the polishing disk.

8. Polishing device according to Claim 1, characterized in that the protective element is made of the same material as the polishing disk, in particular in the shape of a material rail having openings on its ends, for inserting the shank.

9. Polishing device according to any of Claim 1, characterized in that the protective element encompasses the shaft end with some play, the axial shank end being axially accessible to allow releasing the friction-attachment.

10. Polishing device according to any of Claim 1, characterized in that a plurality of polishing disks have a shape essentially representing a cylinder, a cylinder in the shape of a hollow groove in the external polishing area, a truncated cone, or a ball.

11. Polishing device according to any of Claim 1, characterized in that the shank is a screw bolt, the stop encompassing the head end of the screw bolt and the second stop encompassing a nut.

12. Polishing device according to Claim 11, which can be set in rotation by means of a tool machine, characterized in that the rotation movement allows independent fixing of the polishing disks.